

EXHIBIT C

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Paper 16
Date: May 13, 2021

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner,

v.

SINGULAR COMPUTING LLC,
Patent Owner.

IPR2021-00165
Patent 9,218,156 B2

Before JUSTIN T. ARBES, KRISTIL R. SAWERT, and
JASON M. REPKO, *Administrative Patent Judges*.

PER CURIAM.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

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F.3d 1308, 1324 (Fed. Cir. 1999) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966); *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 718 (Fed. Cir. 1991)).

Relying on the declaration testimony of Mr. Goodin, Petitioner contends that an ordinarily skilled artisan for the '156 patent “would have had at least a bachelor’s degree in Electrical Engineering, Computer Engineering, Applied Mathematics, or the equivalent, and at least two years of academic or industry experience in computer architecture.” Pet. 8–9 (citing Ex. 1003 ¶¶ 43–44). Patent Owner does not address the level of ordinary skill in the art in its Preliminary Response. *See generally* Prelim. Resp.

Based on the record presented, including our review of the '156 patent (including the types of problems and solutions described in the '156 patent), and cited prior art, we agree with Petitioner’s proposed definition of the level of ordinary skill in the art with one exception. Arguably, the term “at least” creates unnecessary ambiguity. Thus, we delete that term from Petitioner’s definition, and otherwise apply Petitioner’s definition for this decision. *See, e.g.*, Ex. 1001, 1:31–2:10 (describing in the “Background” section of the '156 patent various conventional methods of computation and their alleged deficiencies).

B. Claim Construction

In interpreting the claims of the '156 patent, we “us[e] the same claim construction standard that would be used to construe the claim[s] in a civil action under 35 U.S.C. [§] 282(b).” 37 C.F.R. § 42.100(b) (2020). The claim construction standard includes construing claims in accordance with the ordinary and customary meaning of such claims as would have been

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understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. *See id.*; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–14 (Fed. Cir. 2005) (en banc).

Petitioner contends that the terms of the challenged claims should be “given their ordinary and customary meaning as understood by a [person of ordinary skill in the art] in accordance with the specification and prosecution history,” but does not propose any express interpretations. Pet. 9. Patent Owner disputes the construction of “low precision high dynamic range (LPHDR) execution unit” that Petitioner proposed in the related district court proceeding (i.e., “low precision and high dynamic range processing element designed to perform arithmetic operations on numerical values”). Prelim. Resp. 13–14 (citing Ex. 2001, 13–17 (emphasis omitted)). Patent Owner argues that Dockser does not teach an LPHDR execution unit because “the processing element itself must be fairly characterized as ‘low precision’” and cannot be an execution unit “whose subprecision can be selectively reduced.” *Id.* at 14 (emphasis omitted). We conclude that no terms require express interpretation at this time, and address the parties’ arguments regarding whether Dockser teaches the recited LPHDR execution unit below. *See infra* § III.D.

C. The Asserted Prior Art

Before turning to Petitioner’s asserted grounds of unpatentability, we provide a brief summary of the asserted references.

1. Dockser

Dockser discloses performing floating-point operations with a floating-point processor having selectable precision. Ex. 1007, code (57). Figure 1 of Dockser is reproduced below.